

Illinois Commerce Commission

Resource Adequacy in MISO Zone 4

Post-12/7/2017 Workshop Comments

Of

Illinois Industrial Energy Consumers

December 21, 2017

Introduction

The Illinois Industrial Energy Consumers (“IIEC”) appreciates this opportunity to provide post-12/7/2017 workshop comments on the subject of Resource Adequacy in MISO Zone 4.

As we set out in our Pre-Workshop Comments of November 30, 2017, based on the evidence, there is no resource adequacy problem in MISO Zone 4. For this reason, IIEC believe the best course for MISO Zone 4 is to continue to rely on the existing competitive forces and market structures, but with adjustments geared toward improving the liquidity and transparency of the forward bilateral market for capacity in MISO Zone 4 and potentially increasing the headroom above the cost of new capacity that is currently afforded by the maximum auction clearing price allowed in the MISO PRA. We specifically recommended the following four reforms:

1. **Improve the OMS MISO Survey** -- Further improve the annual OMS-MISO Survey such that it provides a very good 5-year forward looking projection of supply and demand for capacity that is clearly and coherently communicated with minimal risk of misinterpretation. This should include providing a clear indication of the amount of capacity that can be exported and imported from each MISO zone. It should also include further consideration with respect whether to the proper amount of planned generation capacity from MISO’s interconnection queue is being included in the survey. Finally, LSE responses from Illinois ARES should be sought in the survey process rather than relying on Ameren Illinois’ responses alone.

2. **Improve the Lead Time and Transparency of Generation Suspension and Retirement Notices to MISO** -- Increase the notice time and eliminate the confidentiality requirement associated with MISO's Attachment Y suspension and retirement request process. Specifically, lengthen the notice for cessation of operation to 52 weeks and eliminate the confidentiality of MISO Attachment Y notices entirely.¹
3. **Development of Forward Capacity Market Price Indices** -- Work with industry trade press to provide for regular reporting with respect to the forward market prices for capacity bilaterally traded in MISO Zone 4.
4. **Explore Raising the Maximum Auction Clearing Price Allowed in the MISO PRA** -- Cautiously explore the possibility of raising the maximum auction clearing price allowed in the MISO Planning Resource Auction ("PRA") from the gross Cost of New Entergy ("CONE") for a Combustion Turbine ("CT") generator (currently approximately \$260 per MW-day) to some greater value in order to provide greater headroom in the PRA above the net CONE of a CT generator.

We continue to recommend these reforms be pursued to improve the effectiveness of the existing competitive forces and market structures for capacity in MISO Zone 4.

We also continue to oppose more aggressive changes to the market structure in MISO Zone 4 for the reasons explained in detail in our November 30th pre-workshop comments. The changes we oppose include: (i) introducing additional capacity requirements on LSEs (either directly on ARES or indirectly by having the Illinois Power Agency acquire all of the capacity needs for Ameren Illinois retail customers); (ii) creating an Illinois Resource Adequacy standard; or (iii) moving Ameren Illinois from MISO to PJM.

The balance of these post-workshop comments provides additional detail with respect to our recommended reforms and responds to certain aspects of the presentations of MISO and Dynegy. Our silence with respect to any aspect of the pre-workshop comments and workshop presentations of MISO, Dynegy or any other stakeholder should not be interpreted as an endorsement of any position taken in those comments or presentations.

¹ IIEC would note that it is not opposed to keeping MISO Attachment Y-2 submissions confidential. Attachment Y-2 submissions are permitted under the MISO Tariff in order to allow a generation resource to explore whether its continued operation might be necessary for transmission reliability and necessitate it entering into a System Support Resource ("SSR") contract with MISO.

IIEC Recommendation #1: Improve the OMS MISO Survey

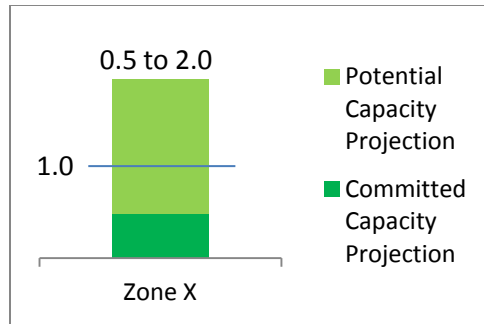
Expanding upon our pre-workshop comments, under this recommendation we are specifically recommending that specific additional reforms to the OMS MISO Survey process be sought and implemented through the MISO Stakeholder process and through the Commission's participation in the Organization of MISO States ("OMS").

First, the bar chart summaries presented in the survey results² should be modified to clearly indicate the amount of excess capacity that can be exported from each zone and the amount of deficit capacity for each zone that can be imported from other zones.

The amount of excess capacity that can be exported from each zone is the Capacity Export Limit for that zone. As part of the annual MISO Loss of Load Expectation ("LOLE") study process, MISO already calculates Capacity Export Limit values for each zone for the forthcoming MISO planning year and projected Capacity Export Limits for certain future MISO planning years.³ These could be reflected on the summary bar charts in the OMS MISO Survey results as a horizontal line segment crossing each zonal bar at the level of the Capacity Export Limit. For example, assume Zone X had a Committed Capacity Projection of 0.5 GW, a Potential Capacity Projection of 2.0 GW and a Capacity Export Limit of 1.0 GW. Under our proposal, its bar in the OMS MISO Survey summary of results would appear as follows:

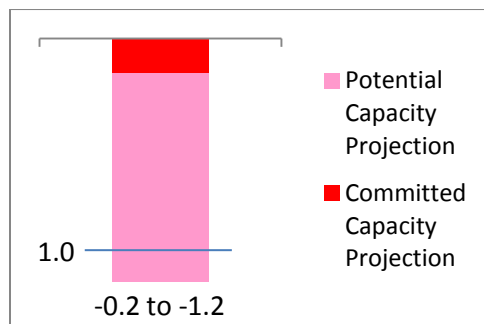
² See *2017 OMS MISO Survey Results*, July 2017 (<https://www.misoenergy.org/layouts/MISO/ECM/Redirect.aspx?ID=254164>) at Slides 14 and 15.

³ These values are calculated in terms of Unforced Capacity ("UCAP"), but could be converted to the Installed Capacity ("ICAP") values used by the OMS MISO Survey by adjusting them up for the weighted average equivalent forced outage rate in MISO.



This change would make clear that only up to 1.0 GW of Zone X's capacity excess could be exported to other MISO zones.

The amount of deficit capacity that can be imported into a zone from other zones is the difference between the Planning Resource Margin Requirement ("PRMR") for the importing zone and that zone's Local Clearing Requirement ("LCR"). Like with CEL values, this value for future MISO planning years for each zone can be derived from information compiled as part of MISO's annual LOLE study process. As a result, this value, the effective import capability for each zone, could be reflected on the summary bar charts in OMS MISO Survey in a manner similarly to the way we propose for CEL values. For example, assume Zone Y had a Committed Capacity Projection of -0.2 GW, a Potential Capacity Projection of -1.2 GW and an effective import limit (PRMR less LCR) of 1.0 GW. Under our proposal, its bar in the OMS MISO Survey summary of results would look as follows:



This change would make clear that after taking the effective import capability of Zone Y into consideration, that all but 0.2 GW of the worst case projection (the Potential Capacity Projection) could be imported into Zone Y from other MISO Zones.

Second, in addition to the above proposed changes to the OMS MISO Survey summary bar charts, we are also recommending that the amount of planned generation capacity in the MISO generation interconnection queue that does not have an executed interconnection agreement that is included within the “Committee Capacity Projection” of the OMS MISO Survey be updated each year to reflect the latest available information with respect to the likelihood of such planned generation actually entering service.

Finally, we recommend that Load Serving Entity (“LSE”) responses from Illinois Alternative Retail Suppliers (“ARES”) also be sought in the OMS MISO Survey and that responses from Ameren Illinois alone not be relied upon alone. This will help to ensure that information with respect to future ARES capacity commitments and plans are not missed in the survey process as Ameren Illinois likely does not have access to that information.

IIEC Recommendation #2: Improve the Lead Time and Transparency of Generation Suspension and Retirement Notices

This recommendation was very specifically laid out in our pre-workshop comments. Specifically, MISO’s Attachment Y process should be modified to increase the notice time for suspensions and retirements to 52 weeks and to require that all confidentiality would be removed regarding such notices. This would provide greater transparency with respect to the expected future balance between supply and demand better supporting the forward bilateral market for capacity and

affording more time for market entry for short-lead time sources of capacity such as additional demand response.

IIEC Recommendation #3: Development of Forward Capacity Market Price Indices

Expanding upon our pre-workshop comments, what IIEC would specifically propose to implement this recommendation is for a series of workshops to be conducted by MISO, Ameren Illinois and/or the Commission to understand and explore: (i) how the existing bilateral forward market indices for energy were developed and operate today; (ii) barriers to the development of similar forward market price indices for the bilateral trading of capacity in Zone 4; and (iii) possible ways of jump starting the reporting of forward market price indices for capacity in Zone 4. We believe such workshops would provide an opportunity to fully understand the issue and would help to develop a solution. As we discussed in our pre-workshop comments, the development of such price indices for capacity would help to improve the transparency and effectiveness of the forward bilateral market for capacity in Zone 4.

IIEC Recommendation #4: Explore Raising the Maximum Auction Clearing Price Allowed in the MISO

PRA

Expanding upon our pre-workshop comments with respect to this recommendation, we envision the recommendation being implemented in the form of an investigation conducted within the MISO Resource Adequacy Subcommittee (“RASC”) process, initiated by a request by the Commission to MISO. We envision the MISO stakeholder process as the means for working on the issue because the proposal involves a generic change to the maximum clearing price allowed in the MISO PRA. This said, it is

important to note that this proposed change does not necessarily carry the same controversy with stakeholders as, for example, would exploring changes to the MISO PRA to adopt characteristics similar to PJM's capacity auctions. Moreover, during the stakeholder discussions over MISO's now defunct Competitive Retail Solution ("CRS") Proposal, raising the maximum allowed clearing price in the MISO PRA was specifically advocated by a number of MISO stakeholders as a potentially acceptable alternative to MISO's CRS Proposal.

MISO's December 7, 2017 Workshop Presentation

We appreciate MISO providing a presentation during the workshop with respect to its perspective with respect to resource adequacy. At this time we would like to offer brief comments on two aspects of that presentation.

First, in Slide 3 of its presentation, MISO emphasized that its PRA is a residual auction that allows buyers and sellers to balance their resource portfolio prior to the Planning year. We disagree that it is simply a residual auction. Since the MISO PRA can be relied upon entirely for capacity by any supplier, it is better termed as a spot market auction just as MISO's day-ahead and real-time Locational Marginal Pricing ("LMP") are spot market auctions for energy. Furthermore, all commodity markets contain spot markets whether those spot markets are conducted through an organized auction performed some time in advance of delivery (such as the MISO PRA) or bilaterally just prior to delivery. Furthermore, well developed commodity markets typically involve a continuum of trading that stretches from long-term forward bilateral contracting, to mid-term contracting, to short-term forward bilateral contracting to spot purchases. In this continuum of trading, longer term forward bilateral trading is conducted based on the expectation of future prices in shorter term bilateral markets and ultimately on the expectation of future prices in the spot market. For this reason, it important for the market prices

that are possible in the spot market to be high enough to provide sufficient risk to future buyers such that they are willing to forward contract at a price high enough to support new entry when that new entry is warranted. It is also why it is important that the forward bilateral market have good visibility with respect to the future expected balance between supply and demand of the commodity as well as the forward price at which the commodity is currently typically trading. Our four recommendations to the Commission are specifically designed to improve the capacity market in Zone 4 by addressing these specific needs.

We also take issue with certain aspects of Slide 4 of MISO's presentation. In Slide 4, MISO identified that 5.4 GW of the 2017 OMS MISO Survey projection of 12.2 GW of Total Committed Capacity for Zone 4 for 2022 is at-risk because it is being met by price-sensitive and other high risk resources. There are two problems with MISO's observation. First, as we discussed in detail in our pre-workshop comments, approximately 4,600 MW of capacity can be currently imported into Zone 4 from other MISO zones and that import capability will likely increase as MISO's Multi-Value transmission projects ("MVPs") enter service between now and 2022. Thus, imported capacity would be available to replace a significant portion of the at-risk capacity in Zone 4 to the extent that at-risk capacity actually exits the MISO market at some point in the future. Second, as the capacity market in MISO Zone 4 gets tighter it will cause market prices to rise both in the bilateral market and in the MISO PRA. Higher capacity market prices will lead to more demand response than we have currently have in Zone 4, not less. Moreover, those higher capacity market prices are likely at some point to be high enough to allow much of the at-risk generation capacity to remain viable. In addition, it is important to note that at-risk generation capacity is not likely to evaporate in a single stroke overnight. Rationale behavior dictates that at-risk generation capacity will exit the market gradually as the owners of that capacity attempt to feel their way to higher prices that allow them to reach a price high enough to allow as much of their remaining generation fleet as possible to remain viable on a going forward basis. Lastly, it is important

that the current technology-specific reference levels available in the MISO PRA to existing coal-fired generation resources within MISO already provide an easy way for those resources to be offered into the MISO PRA at prices well in excess of \$100 per MW-day. As a result, if needed, those resources can clear in the MISO PRA and set the Zone 4 clearing price in the PRA at that level.

Dynegy Pre-Workshop Comments and Workshop Presentation

We also appreciate Dynegy giving its perspective in its pre-workshop comments and workshop presentation. However, we have a number of concerns and disagreement with Dynegy's comments and presentation. Most of these concerns and disagreements have already been a discussed in our pre-workshop comments or in our response above to MISO's workshop presentation. However, we would note the following additional points at this time:

- Dynegy has presented no evidence that there is a pending reliable operation and resiliency issue in MISO Zone 4.
- Dynegy in Slide 7 of its presentation points to PJM capacity auction clearing prices for 2018-2019 through 2020-2021 in the range of \$153 per MW-day to \$215 per MW-day. However, those are the prices for the ComEd Zone, a price that Dynegy's MISO Zone 4 capacity cannot earn in the PJM Capacity Auction. Dynegy's MISO Zone 4 capacity can only earn the RTO capacity price in PJM. Those capacity prices have only ranged from \$76.53 per MW-day to \$164.77 per MW-day for the 2018-2019 through 2020-2021 planning years in the PJM Base Residual Auction.
- Dynegy in Slide 8 compares the difference in MISO and PJM capacity auctions for nearby generation facilities in Illinois. It is important to note that the opposite issue exists with IIEC members facilities located nearby that are on opposite sides of the MISO/PJM border. Giving higher capacity prices to Dynegy will result in higher capacity costs for IIEC members undermining their competitiveness in national and global markets.
- Dynegy in Slide 9 ignores that up to 4,600 MW of capacity can currently be imported into Zone 4.

Conclusion

IIEC once again thanks the ICC for an opportunity to provide post-workshop comments on the subject of Resource Adequacy in MISO Zone 4. We look forward to discussing our views further at the Commission's forthcoming workshop that is scheduled for January and would be glad to address any questions regarding these comments.

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